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<i>:</i>	27:	for the largest aluminum factory i of town and to the chemical works to local requirements.	n Hungary located in the center located SE of town in addition
31: Szolnok (4710N/2011E) Transformer Sub-station. For single line			Sub-station. For single line
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USAF review completed.

## C-O-N-F-I-D-E-N-T-I-A-L

-2-

Point 37: Pecs (4605N/1813E) Power and Transformer Sub-stations provide all electric power for the Soviet controlled coal mines in the Area. The Soviets have designed and are ready to build a nuclear reactor power station NW of the town area. The Soviets are mining uranium and beryl in this area.

information on Budapest power installations. For sketch of the Grid System of Budapest see Enclosure A: The Gaepel Power and Transformer Sub-station provides power for the Caepel Steel Works and the Truck Factory located near the Steel Works. The Budaors Transformer Sub-station provides power to the "President Kovaca" Tank Factory, located in the woods near provides power to the "President Kovaca" Tank Factory, located in the woods near Budaors, and for the Shell Factory associated with the Tank Factory. The Kalenfold Power Station provides power for a secret factory E of Godollo (4736N/1921F). Soviet and Hungarian Military vision this power station very often.

Point 1: Cooling Towers, constructed of brick, approximately 60 feet high, wide at the base, tapering to the top.

2: Smokestacks

3.

- 3: Power Distribution Lines
- 4: Outdoor Transideries and Switch-gard
- 5: Water Supply Post.
- 6: Leading Flatform with businet conveyor coming from the Boiler House, Frint 8. Ashes were brought from the Boiler House to this platform and then loaded onto reduced cars.
- 7: Leading Platform with backet conveyor going into the Baller House, Point 8. Coul brought in an railroad, Point 11, was transported into the Baller House.
- 8: Boiler House and Generator Building. Smokestacks, Foldies, atop this building always coincided in number to Cooling Towars, Point 1.
- 9: Power Distribution Area.
- 10: Power Plant Offices
- 11: Railroad for byinging coal and other supplies into power plant.
- 12: Fence
- 13: Gate

This layout was standard throughout Hungary. The only difference was in the size of individual buildings and in the number of smokestacks and cooling towers present in any particular power plant. Power plants throughout Hungary operated on a three shift basis, seven days a week. About 40 persons were employed per shift, of which about 20 were skilled and four females for typing. All power stations had a reinforced concrete, underground air-raid shelter within the power plant area, usually in the basement of the Boiler House and Generator Building.

C=O=N=F=I=D=E=N=T=I=A=L

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C-C-N-F-I-D-E-N-T-I-A-L

-3-.

All power plant boilers were coal-fired, and varied from three to five boilers depending on the size of the plant and the power requirements levied upon it. All power plants throughout Hungary are thermal type and supply only alternating current. Transformers and circuit breakers are of poor quality and very frequently break down. In the power plants one-third of the turbo-generators inoperative because of break-down. The power plant at Banhida has five generating units, the one at Matra has six generating units; all others have only four. Each generating unit has a capacity of 30 thousand KVA. At transformer substations operate on a three shift-seven-days per week basis. Each shift consists of eight persons of which four are skilled workers.

sketch of high-tension towers see Enclosure C. In general, all towers are placed about 120 neters apart, connected to each other by an aluminum-alloy stranded shielding wire about 3/4 inch in diameter. Tower "A" [Enclosure C] is about 16 meters high, constructed of steel, and used to carry 120 KV, double line of three conductors acade. Tower "B" [Enclosure C] is about 16 meters high, steel construction, and used to carry 120 KV, single line of three conductors. Tower "C" [Enclosure C] is about 14 meters high, with same construction and use as Tower "B". Tower "B". The wire distance at 120 KV = 220 cm phase to phase. All towers are painted grey-green.

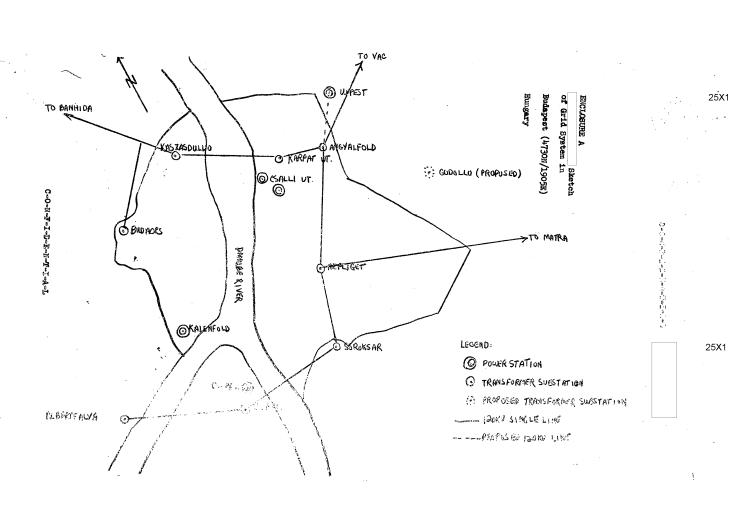
The Clevis Suspension Type porselain insulator is used almost exclusively.

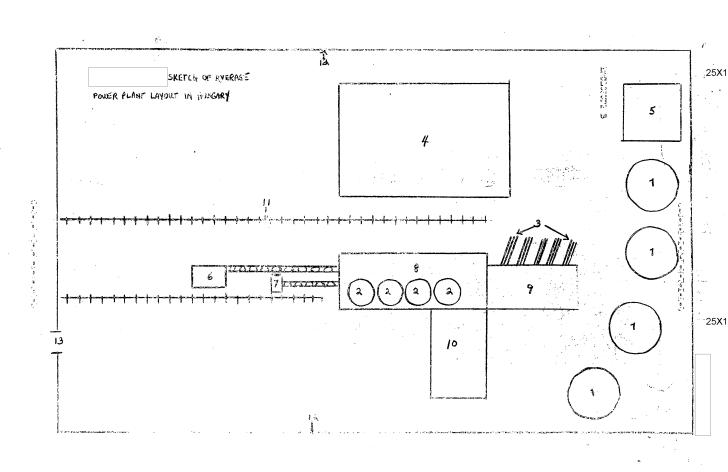
For 120 KV, they used four insulators. Each insulator assembly was provided with a circular Corona shield, and one petticeat. The other type of insulator was a one-piece suspension type, about 2½ feet long, with 10 petticeats and a shield; this type was practically worthless.

## Enclosuros:

F	res	sketch	of	Single Line Diagram of the Debrecen Transfermer Sub-station.
E	<b></b>	sketch	of	Single Line Diagram of the Szolnok Transformer Sub-station.
D	æ	sketch	of	Insulators used on High Tension Towers in Hungary.
C	'n	defeal		High Tonsion Towers in Hungary.
B		shetch	o <b>t</b>	Typical Power Plant Isyout in Hungary.
A.	<b>S</b>	skotch	O <b>L</b>	Grid System in Budapost.

C-O-N-F-I-D-E-N-T-I-A-I





Approved For Release 2009/07/27 : CIA-RDP80T00246A001900210001-7 25X1 Sketch of High Tension Towers in Hungary

INCLOSUDE D

Sketch of Troulators Word on High Tempion Others in Tanjary

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